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POTENTILLAE OF THE ARCTIC-ALPINE ZONE ON PIKE'S PEAK

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Five species of *Potentilla*, with their near relative *Dasiphora fruticosa*, appear within this zone on Pike's Peak.

P. saximontana Rydb. is by far the most abundant and conspicuous. It occurs everywhere and exhibits many variations of habit due to its environment. Ordinarily of a caespitose habit, in well-watered situations it becomes more branching and erect; in dry wind-swept areas a plant often consists of a single prostrate caudex. It blooms through the entire growing season and may be found even late in October in protected spots. Dr. Rydberg said of the specimen I submitted to him for identification: "*P. saximontana* Rydb. approaching *rubripes*; I am afraid the two species run too much into each other and probably are but one." The other species of the group "Rubricaulis" of the Flora of Colorado which have been reported from Pike's Peak evidently were the variations of this species.

P. viridior Rydb. is often similar to *P. saximontana* in habit but differs in its narrower, darker petals and larger leaf surface. It blooms earlier in the same localities and typical plants are taller and "stemier" with the leaves darker green above. According to Dr. Rydberg the leaves of the plants of this locality seem to be whiter beneath than those of the type plant. This species is quite frequent along trails and rivulets up to 12,200 feet.

P. filipes Rydb. is quite variable and not found above 12,000 feet. This species is *P. pulcherrima* of the Flora of Colorado but the altitudinal range should be extended upward 2,000 feet, for it occurs in dense patches on grassy banks well above timber

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line. Leaves with seven and nine or even more leaflets are common, especially where the struggle for existence is keen as in dry, gravelly spots, and some leaves even assume a pinnate form under these conditions.

P. dissecta var. *glaucaophylla* Lehm. is abundant along stony water-courses up to 12,500 feet and is the earliest spring-blooming species. It is the only smooth-leaved *Potentilla* within the zone and the leaves are toothed only at the apex in marked contrast to the many lobes and divisions of the leaves of the other species. The species itself does not appear within the zone.

P. bipinnatifida Dougl. occasionally may be found well above timber line. It is abundant at 11,000 feet and at that altitude is a robust and branching plant. Above timber line it occurs only along the trails and is a small plant with contracted leaf surface and few flowers. In these situations it blooms in late August and seldom exhibits perfect development.

Dasiphora fruticosa (L.) Rydb. appears up to 12,500 feet and is especially noticeable among the alpine flowers for its shrubby habit. While it becomes quite dwarf and prostrate at the altitudinal limit, its bright yellow flowers make it always conspicuous and unmistakable.

BLANCHE SOTH

MANITOU, COLORADO

ADAM IN EDEN OR NATURE'S PARADISE*

EXTRACTS BY JEAN BROADHURST

CHAP. XIII

Of Misselto

The Forme.

Misselto is an excrescence arising from the branch or arm of the Tree whereon it groweth with a woody stemme, parting it self into fundry branches; * * * within the berry is contained a small black kernell or seed, which hath been put into the ground, and other places, but was never yet known to grow, it being indeed without any root.

* Illustrated with the aid of the Catherine McManes fund. Continued from August, 1910.